IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A semiconductor device provided with a pixel TFT formed in a pixel portion and a driver circuit having a p-channel TFT and an n-channel TFT formed in the periphery of the pixel portion on the same substrate, wherein:

the n-channel TFT of said driver circuit has a gate electrode having a taper portion, a channel forming region, a first impurity region for forming an LDD region provided so as to overlap the gate electrode and so as to be in contact with the channel forming region, and a second impurity region for forming a source region or a drain region provided outside the first impurity region;

the p-channel TFT of said driver circuit has a gate electrode having a taper portion, a channel forming region, a third impurity region for forming an LDD region provided so as to overlap the gate electrode and so as to be in contact with the channel forming region, and a fourth impurity region for forming a source region or a drain region provided outside the third impurity region;

the pixel TFT has a gate electrode having a taper portion, a channel forming region, a first impurity region for forming an LDD region provided so as to overlap the gate electrode and so as to be in contact with the channel forming region, and a second impurity region for forming a source region or a drain region provided outside the first impurity region;

a concentration of an impurity element of one conductivity in the first impurity region and a concentration of an impurity element of opposite conductivity in the third impurity region become higher as the distance from the channel forming regions to which the respective impurity regions are adjoined to increases; and

a pixel electrode provided in said pixel portion has a light reflective surface, is formed on a second interlayer insulating film made of an organic insulating material, and is connected to the pixel TFT via an opening provided at least in a first interlayer insulating film made of an inorganic insulating material formed above the gate electrode of the pixel TFT and in the second interlayer insulating film formed in contact with the top surface of the first interlayer insulating film.

2. (Original) A device according to claim 1, wherein:

the gate electrodes of the pixel TFT and of the p-channel TFT and the n-channel TFT of the driver circuit are formed of a heat-resistant conductive material; and

a gate wiring extending from said driver circuit to be connected to the gate electrodes is formed of a low-resistant conductive material.

3. (Original) A device according to claim 2, wherein the heat-resistant conductive material is an element selected from the group consisting of tantalum (Ta), titanium (Ti), and tungsten (W); or a compound having the above elements as a constituent; or a compound of a combination of the above elements; or a nitride having the above elements as a constituent; or a silicide having the above elements as a constituent.

4. (Original) A device according to claim 1, wherein an angle of the taper portion of the gate electrode is between 5° and 35°.

5. (Original) A device according to claim 1, wherein said semiconductor device is a device

selected from a personal computer, a video camera, a portable information terminal, a digital camera, a digital video disc player, an electronic amusement equipment, and a projector.

6. (Original) A semiconductor device provided with a pixel TFT formed in a pixel portion and a driver circuit having a p-channel TFT and an n-channel TFT formed in the periphery of the pixel portion on the same substrate, wherein:

the n-channel TFT of said driver circuit has a gate electrode having a taper portion, a channel forming region, a first impurity region for forming an LDD region provided so as to overlap the gate electrode and so as to be in contact with the channel forming region, and a second impurity region for forming a source region or a drain region provided outside the first impurity region;

the p-channel TFT of said driver circuit has a gate electrode having a taper portion, a channel forming region, a third impurity region for forming an LDD region provided so as to overlap the gate electrode and so as to be in contact with the channel forming region, and a fourth impurity region for forming a source region or a drain region provided outside the third impurity region;

the pixel TFT has a gate electrode having a taper portion, a channel forming region, a first impurity region for forming an LDD region provided so as to overlap the gate electrode and so as to be in contact with the channel forming region, and a second impurity region for forming a source region or a drain region provided outside the first impurity region;

a concentration of an impurity element of one conductivity in the first impurity region and a concentration of an impurity element of opposite conductivity in the third impurity region become higher as the distance from the channel forming regions to which the respective impurity regions are adjoined to increases; and

a pixel electrode provided in said pixel portion has light transmittivity, is formed on a second interlayer insulating film made of an organic insulating material, and is connected to a conductive metallic wiring to be connected to the pixel TFT, the conductive metallic wiring is formed via an opening provided at least in a first interlayer insulating film made of an inorganic insulating material formed above the gate electrode of the pixel TFT and in the second interlayer insulating film formed in contact with the top surface of the first interlayer insulating film.

7. (Original) A device according to claim 6, wherein:

the gate electrodes of the pixel TFT and of the p-channel TFT and the n-channel TFT of the driver circuit are formed of a heat-resistant conductive material; and

a gate wiring extending from said driver circuit to be connected to the gate electrodes is formed of a low-resistant conductive material.

8. (Original) A device according to claim 7, wherein the heat-resistant conductive material is an element selected from the group consisting of tantalum (Ta), titanium (Ti), and tungsten (W); or a compound having the above elements as a constituent; or a compound of a combination of the above elements; or a nitride having the above elements as a constituent; or a silicide having the above elements as a constituent.

9. (Original) A device according to claim 6, wherein an angle of the taper portion of the gate electrode is between 5° and 35°.

10. (Original) A device according to claim 6, wherein said semiconductor device is a device selected from a personal computer, a video camera, a portable information terminal, a digital camera, a digital video disc player, an electronic amusement equipment, and a projector.

11. (Original) A semiconductor device having liquid crystal held between a pair of substrates, wherein:

a pixel portion and a driver circuit formed in the periphery of the pixel portion are formed on one substrate;

an n-channel TFT of said driver circuit has a gate electrode having a taper portion, a channel forming region, a first impurity region for forming an LDD region provided so as to overlap the gate electrode and so as to be in contact with the channel forming region, and a second impurity region for forming a source region or a drain region provided outside the first impurity region;

a p-channel TFT of said driver circuit has a gate electrode having a taper portion, a channel forming region, a third impurity region for forming an LDD region provided so as to overlap the gate electrode and so as to be in contact with the channel forming region, and a fourth impurity region for forming a source region or a drain region provided outside the third impurity region;

the pixel TFT has a gate electrode having a taper portion, a channel forming region, a first impurity region for forming an LDD region provided so as to overlap the gate electrode and so as to be in contact with the channel forming region, and a second impurity region for forming a source region or a drain region provided outside the first impurity region;

a concentration of an impurity element of one conductivity in the first impurity region and a concentration of an impurity element of opposite conductivity in the third impurity region

become higher as the distance from the channel forming regions to which the respective impurity regions are adjoined to increases; and

a pixel electrode provided in said pixel portion has a light reflective surface, is formed on a second interlayer insulating film made of an organic insulating material, and is connected to the pixel TFT via an opening provided at least in a first interlayer insulating film made of an inorganic insulating material formed above the gate electrode of the pixel TFT and in the second interlayer insulating film formed in contact with the top surface of the first interlayer insulating film;

said one substrate is bonded to the other substrate having a transparent conductive film formed thereon via at least one column-shape spacer formed overlapping the opening provided in the second interlayer insulating film.

12. (Original) A device according to claim 11, wherein:

the gate electrodes of the pixel TFT and of the p-channel TFT and the n-channel TFT of the driver circuit are formed of a heat-resistant conductive material; and

a gate wiring extending from said driver circuit to be connected to the gate electrodes is formed of a low-resistant conductive material.

13. (Original) A device according to claim 12, wherein the heat-resistant conductive material is an element selected from the group consisting of tantalum (Ta), titanium (Ti), and tungsten (W); or a compound having the above elements as a constituent; or a compound of a combination of the above elements; or a nitride having the above elements as a constituent; or a silicide having the above elements as a constituent.

14. (Original) A device according to claim 11, wherein an angle of the taper portion of the gate electrode is between 5° and 35°.

15. (Original) A device according to claim 11, wherein said semiconductor device is a device selected from a personal computer, a video camera, a portable information terminal, a digital camera, a digital video disc player, an electronic amusement equipment, and a projector.

16. (Original) A semiconductor device having liquid crystal held between a pair of substrates, wherein:

a pixel portion and a driver circuit formed in the periphery of said pixel portion are formed on one substrate;

an n-channel TFT of said driver circuit has a gate electrode having a taper portion, a channel forming region, a first impurity region for forming an LDD region provided so as to overlap the gate electrode and so as to be in contact with the channel forming region, and a second impurity region for forming a source region or a drain region provided outside the first impurity region;

a p-channel TFT of said driver circuit has a gate electrode having a taper portion, a channel forming region, a third impurity region for forming an LDD region provided so as to overlap the gate electrode and so as to be in contact with the channel forming region, and a fourth impurity region for forming a source region or a drain region provided outside the third impurity region;

the pixel TFT has a gate electrode having a taper portion, a channel forming region, a first impurity region for forming an LDD region provided so as to overlap the gate electrode and so as to

be in contact with the channel forming region, and a second impurity region for forming a source region or a drain region provided outside the first impurity region;

a concentration of an impurity element of one conductivity in the first impurity region and a concentration of an impurity element of opposite conductivity in the third impurity region become higher as the distance from the channel forming regions to which the respective impurity regions are adjoined to increases;

a pixel electrode provided in said pixel portion has light transmittivity, is formed on a second interlayer insulating film made of an organic insulating material, and is connected to the pixel TFT via an opening provided at least in a first interlayer insulating film made of an inorganic insulating material formed above the gate electrode of the pixel TFT and in the second interlayer insulating film formed in contact with the top surface of the first interlayer insulating film; and

said one substrate is bonded to the other substrate having a transparent conductive film formed thereon via at least one column-shape spacer formed overlapping the opening provided in the second interlayer insulating film.

17. (Original) A device according to claim 16, wherein:

the gate electrodes of the pixel TFT and of the p-channel TFT and the n-channel TFT of the driver circuit are formed of a heat-resistant conductive material; and

a gate wiring extending from said driver circuit to be connected to the gate electrodes is formed of a low-resistant conductive material.

18. (Original) A device according to claim 17, wherein the heat-resistant conductive material

is an element selected from the group consisting of tantalum (Ta), titanium (Ti), and tungsten (W); or a compound having the above elements as a constituent; or a compound of a combination of the above elements; or a nitride having the above elements as a constituent; or a silicide having the above elements as a constituent.

19. (Original) A device according to claim 16, wherein an angle of the taper portion of the gate electrode is between 5° and 35°.

20. (Original) A device according to claim 16, wherein said semiconductor device is a device selected from a personal computer, a video camera, a portable information terminal, a digital camera, a digital video disc player, an electronic amusement equipment, and a projector.

21-36 (Canceled).

37. (New) A semiconductor device comprising:

a substrate;

a pixel TFT provided over said substrate and comprising a source region and a drain region and a gate electrode and an LDD region, said LDD region overlapping with said gate electrode;

a p-channel TFT provided in a driver circuit over said substrate and comprising a source region and a drain region and a gate electrode;

an n-channel TFT provided in said driver circuit over said substrate and comprising a source region and a drain region and a gate electrode and an LDD region, said LDD region overlapping with

said gate electrode;

an insulating film comprising silicon nitride and provided over at least one of said gate electrode of said pixel TFT and said gate electrode of said p-channel TFT and said gate electrode of said n-channel TFT,

wherein a taper angle formed in a taper portion of at least one of said gate electrode of said pixel TFT and said gate electrode of said p-channel TFT and said gate electrode of said n-channel TFT is 5 ° to 45 °.

38. (New) A device according to claim 37 wherein said p-channel TFT further comprises an LDD region overlapping with said gate electrode of said p-channel TFT.

39. (New) A device according to claim 37 wherein a concentration of an impurity element of n-type conductivity in said LDD region of said n-channel TFT becomes higher as distance from a channel forming region to which said LDD region of said n-channel TFT is adjoined to increases.

40. (New) A device according to claim 37 wherein a concentration of an impurity element of n-type conductivity in said LDD region of said pixel TFT becomes higher as distance from a channel forming region to which said LDD region of said pixel TFT is adjoined to increases.

41. (New) A device according to claim 38 wherein a concentration of an impurity element of p-type conductivity in said LDD region of said p-channel TFT becomes higher as distance from a channel forming region to which said LDD region of said p-channel TFT is adjoined to increases.

42. (New) A liquid crystal display device comprising:

a substrate;

a pixel TFT provided over said substrate and comprising a source region and a drain region and a gate electrode and an LDD region, said LDD region overlapping with said gate electrode;

a p-channel TFT provided in a driver circuit over said substrate and comprising a source region and a drain region and a gate electrode;

an n-channel TFT provided in said driver circuit over said substrate and comprising a source region and a drain region and a gate electrode and an LDD region, said LDD region overlapping with said gate electrode;

an insulating film comprising silicon nitride and provided over at least one of said gate electrode of said pixel TFT and said gate electrode of said p-channel TFT and said gate electrode of said n-channel TFT,

wherein a taper angle formed in a taper portion of at least one of said gate electrode of said pixel TFT and said gate electrode of said p-channel TFT and said gate electrode of said n-channel TFT is 5 ° to 45 °.

43. (New) A device according to claim 42 wherein said p-channel TFT further comprises an LDD region overlapping with said gate electrode of said p-channel TFT.

44. (New) A device according to claim 42 wherein a concentration of an impurity element of n-type conductivity in said LDD region of said n-channel TFT becomes higher as distance from a channel forming region to which said LDD region of said n-channel TFT is adjoined to increases.

45. (New) A device according to claim 42 wherein a concentration of an impurity element of n-type conductivity in said LDD region of said pixel TFT becomes higher as distance from a channel forming region to which said LDD region of said pixel TFT is adjoined to increases.

46. (New) A device according to claim 43 wherein a concentration of an impurity element of p-type conductivity in said LDD region of said p-channel TFT becomes higher as distance from a channel forming region to which said LDD region of said p-channel TFT is adjoined to increases.

47. (New) An EL display device comprising:

a substrate;

a pixel TFT provided over said substrate and comprising a source region and a drain region and a gate electrode and an LDD region, said LDD region overlapping with said gate electrode;

a p-channel TFT provided in a driver circuit over said substrate and comprising a source region and a drain region and a gate electrode;

an n-channel TFT provided in said driver circuit over said substrate and comprising a source region and a drain region and a gate electrode and an LDD region, said LDD region overlapping with said gate electrode;

an insulating film comprising silicon nitride and provided over at least one of said gate electrode of said pixel TFT and said gate electrode of said p-channel TFT and said gate electrode of said n-channel TFT,

wherein a taper angle formed in a taper portion of at least one of said gate electrode of said

pixel TFT and said gate electrode of said p-channel TFT and said gate electrode of said n-channel TFT is 5° to 45°.

48. (New) A device according to claim 47 wherein said p-channel TFT further comprises an LDD region overlapping with said gate electrode of said p-channel TFT.

49. (New) A device according to claim 47 wherein a concentration of an impurity element of n-type conductivity in said LDD region of said n-channel TFT becomes higher as distance from a channel forming region to which said LDD region of said n-channel TFT is adjoined to increases.

50. (New) A device according to claim 47 wherein a concentration of an impurity element of n-type conductivity in said LDD region of said pixel TFT becomes higher as distance from a channel forming region to which said LDD region of said pixel TFT is adjoined to increases.

51. (New) A device according to claim 48 wherein a concentration of an impurity element of p-type conductivity in said LDD region of said p-channel TFT becomes higher as distance from a channel forming region to which said LDD region of said p-channel TFT is adjoined to increases.

52. (New) A semiconductor device comprising:

a substrate;

a pixel TFT provided over said substrate and comprising a source region and a drain region and a gate electrode and an LDD region, said LDD region overlapping with said gate electrode;

a pixel electrode provided over said substrate and connected with said pixel TFT and having a light reflective surface;

a p-channel TFT provided in a driver circuit over said substrate and comprising a source region and a drain region and a gate electrode;

an n-channel TFT provided in said driver circuit over said substrate and comprising a source region and a drain region and a gate electrode and an LDD region, said LDD region overlapping with said gate electrode;

an insulating film comprising silicon nitride and provided over at least one of said gate electrode of said pixel TFT and said gate electrode of said p-channel TFT and said gate electrode of said n-channel TFT,

wherein a taper angle formed in a taper portion of at least one of said gate electrode of said pixel TFT and said gate electrode of said p-channel TFT and said gate electrode of said n-channel TFT is 5 ° to 45 °.

53. (New) A device according to claim 52 wherein said p-channel TFT further comprises an LDD region overlapping with said gate electrode of said p-channel TFT.

54. (New) A device according to claim 52 wherein a concentration of an impurity element of n-type conductivity in said LDD region of said n-channel TFT becomes higher as distance from a channel forming region to which said LDD region of said n-channel TFT is adjoined to increases.

55. (New) A device according to claim 52 wherein a concentration of an impurity element of

n-type conductivity in said LDD region of said pixel TFT becomes higher as distance from a channel forming region to which said LDD region of said pixel TFT is adjoined to increases.

56. (New) A device according to claim 53 wherein a concentration of an impurity element of p-type conductivity in said LDD region of said p-channel TFT becomes higher as distance from a channel forming region to which said LDD region of said p-channel TFT is adjoined to increases.

57. (New) A semiconductor device comprising:

a substrate;

a pixel TFT provided over said substrate and comprising a source region and a drain region and a gate electrode and an LDD region, said LDD region overlapping with said gate electrode;

a pixel electrode provided over said substrate and connected with said pixel TFT and having light transmittivity;

a p-channel TFT provided in a driver circuit over said substrate and comprising a source region and a drain region and a gate electrode;

an n-channel TFT provided in said driver circuit over said substrate and comprising a source region and a drain region and a gate electrode and an LDD region, said LDD region overlapping with said gate electrode;

an insulating film comprising silicon nitride and provided over at least one of said gate electrode of said pixel TFT and said gate electrode of said p-channel TFT and said gate electrode of said n-channel TFT,

wherein a taper angle formed in a taper portion of at least one of said gate electrode of said

pixel TFT and said gate electrode of said p-channel TFT and said gate electrode of said n-channel TFT is 5 ° to 45 °.

58. (New) A device according to claim 57 wherein said p-channel TFT further comprises an LDD region overlapping with said gate electrode of said p-channel TFT.

59. (New) A device according to claim 57 wherein a concentration of an impurity element of n-type conductivity in said LDD region of said n-channel TFT becomes higher as distance from a channel forming region to which said LDD region of said n-channel TFT is adjoined to increases.

60. (New) A device according to claim 57 wherein a concentration of an impurity element of n-type conductivity in said LDD region of said pixel TFT becomes higher as distance from a channel forming region to which said LDD region of said pixel TFT is adjoined to increases.

61. (New) A device according to claim 58 wherein a concentration of an impurity element of p-type conductivity in said LDD region of said p-channel TFT becomes higher as distance from a channel forming region to which said LDD region of said p-channel TFT is adjoined to increases.